



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/605,024 | 09/02/2003 | Gregg M. Duthaler | H-357 | 2023 |
| 26245 | 7590 | 06/07/2005 | EXAMINER | |
| DAVID J COLE E INK CORPORATION 733 CONCORD AVE CAMBRIDGE, MA 02138-1002 | | | THOMAS, BRANDI N | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2873 | |

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

24

| | | | |
|------------------------------|------------------|----------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/605,024 | DUTHALER ET AL | |
| | Examiner | Art Unit | |
| | Brandi N. Thomas | 2873 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed on 3/14/05.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-27 and 33-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-27 and 33-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/2/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/11, 3/14/05</u> | 6) <input checked="" type="checkbox"/> Other: <u>Detailed Action</u> |

DETAILED ACTION

Information Disclosure Statement

1. Acknowledgement is made of receipt of Information Disclosure Statement(s) (PTO-1449) filed 3/11/05 and 3/14/05. An initialed copy is attached to this Office Action.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 17, 19, 20, 23, 24, 33-36, and 41-44 are rejected under 35 U.S.C. 102(b) as being anticipated by Holman et al. (6831769 B2).

Regarding claim 17, Holman et al. discloses, in figure 1, an article of manufacture comprising: a layer of a solid electro-optic medium (130) having first and second surfaces on opposed sides thereof (col. 12, lines 41-42 and col. 13, lines 60-63), a first adhesive layer (180) on the first surface of the layer of solid electro-optic medium (130) (col. 12, line 42 and col. 13 lines 9-14); a release sheet (190) disposed on the opposed side of the first adhesive layer (180) from the layer of solid electro-optic medium (130) (col. 12, lines 42-46 and col. 13, lines 10-14); and a second adhesive layer (not shown) on the second surface of the layer of solid electro-optic medium (130) (col. 15, lines 1-18).

Regarding claim 19, Holman et al. discloses, in figure 1, an article of manufacture, wherein the electro-optic medium (130) is an electrophoretic medium comprising a plurality of capsules (140) (col. 12, lines 62-64), each capsule (140) comprising a suspending fluid (165)

Art Unit: 2873

(col. 12, lines 64-67), a plurality of electrically charged particles (150 and 160) suspended in the suspending fluid (165) and capable of moving therethrough on application of an electric field to the suspending fluid, and a capsule wall surrounding the suspending fluid (165) and the electrically charged particles (150 and 160) (col. 12, lines 64-67 and col. 13, lines 1-8).

Regarding claim 20, Holman et al. discloses, in figure 1, an article of manufacture, wherein the first (180) and second (not shown) adhesive layers extend beyond the periphery of the layer of electro-optic medium (figure 1).

Regarding claim 23, Holman et al. discloses, in figure 1, a process for forming an electro-optic display, the process comprising: providing an article of manufacture comprising a layer of a solid electro-optic medium (130) having first and second surfaces on opposed sides thereof (col. 12, lines 41-42 and col. 13, lines 60-63), a first adhesive layer (180) on the first surface of the layer of solid electro-optic medium (130) (col. 12, line 42 and col. 13 lines 9-14); a release sheet (190) disposed on the opposed side of the first adhesive layer (180) from the layer of solid electro-optic medium (130) (col. 12, lines 42-46 and col. 13, lines 10-14); and a second adhesive layer (not shown) on the second surface of the layer of solid electro-optic medium (130) (col. 15, lines 1-18); laminating the article to a front substrate (110) via the second adhesive layer (not shown), thereby forming a front subassembly (col. 16, lines 17-20); removing the release sheet (190) from the front subassembly; and laminating the front subassembly via the first adhesive layer (180) to a backplane comprising at least one electrode (120), thereby forming the electro-optic display (col. 11, lines 15-36 and col. 12, lines 39-46).

Regarding claim 24, Holman et al. discloses, in figure 1, a process for forming an electro-optic display, wherein the front substrate (110) comprises an electrode (120) (col. 12, lines 41).

Regarding claim 33, Holman et al. discloses, in figure 1, an article of manufacture, wherein the electro-optic medium (130) is an electrophoretic medium comprising a plurality of capsules (140) (col. 12, lines 62-64), each capsule (140) comprising a suspending fluid (165) (col. 12, lines 64-67), a plurality of electrically charged particles (150 and 160) suspended in the suspending fluid (165) and capable of moving therethrough on application of an electric field to the suspending fluid, and a capsule wall surrounding the suspending fluid (165) and the electrically charged particles (150 and 160) (col. 12, lines 64-67 and col. 13, lines 1-8).

Regarding claim 34, Holman et al. discloses, in figure 1, an article of manufacture, wherein the suspending fluid (165) and the plurality of electrically charged particles (150 and 160) are present as a plurality of discrete droplets and a continuous phase of polymeric material surrounds the droplets (col. 29, lines 66-67 and col. 30, lines 1-8).

Regarding claim 35, Holman et al. discloses, in figure 1, an article of manufacture, wherein the suspending fluid (165) and the plurality of electrically charged particles (150 and 160) are retained within a plurality of cavities formed in a carrier medium (130) (col. 12, lines 41-42 and col. 13, lines 60-63).

Regarding claim 36, Holman et al. discloses, in figure 1, an article of manufacture, wherein the electro-optic medium (130) is a rotating bichromal member medium or an electrochromic medium (col. 25, lines 22-26).

Regarding claim 41, Holman et al. discloses, in figure 1, an article of manufacture, wherein the electro-optic medium (130) is an electrophoretic medium comprising a suspending fluid (165) (col. 12, lines 64-67), and a plurality of electrically charged particles (150 and 160)

Art Unit: 2873

suspended in the suspending fluid (165) and capable of moving therethrough on application of an electric field to the suspending fluid (col. 12, lines 64-67 and col. 13, lines 1-8).

Regarding claim 42, Holman et al. discloses, in figure 1, an article of manufacture, wherein the suspending fluid (165) and the plurality of electrically charged particles (150 and 160) are present as a plurality of discrete droplets and a continuous phase of polymeric material surrounds the droplets (col. 29, lines 66-67 and col. 30, lines 1-8).

Regarding claim 43, Holman et al. discloses, in figure 1, an article of manufacture, wherein the suspending fluid (165) and the plurality of electrically charged particles (150 and 160) are retained within a plurality of cavities formed in a carrier medium (130) (col. 12, lines 41-42 and col. 13, lines 60-63).

Regarding claim 44, Holman et al. discloses, in figure 1, an article of manufacture, wherein the electro-optic medium (130) is a rotating bichromal member medium or an electrochromic medium (col. 25, lines 22-26).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 18, 21, 22, 26, 27, and 37-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holman et al. (6831769 B2) as applied to claims 17 and 23 above, and further of Jacobson (6517995 B1).

Regarding claim 18, Holman et al. discloses, in figure 1, an article of manufacture including a second adhesive layer (not shown) and a layer of electro-optic medium (130) (col. 12, lines 42-46 and col. 13, lines 10-14 and col. 15, lines 1-18) but does not specifically disclose a second release sheet. However, Jacobson et al. discloses, in figures 6A and 7A, a second release sheet (620) (col. 9, lines 36-43). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the device of Holman et al. with the second release sheet of Jacobson et al. for the purpose of liberating a purely metallic structure (col. 9, lines 19-20).

Regarding claims 21 and 26, Holman et al. discloses, in figure 1, an article of manufacture, wherein comprising: a layer of a solid electro-optic medium (130) having first and second surfaces on opposed sides thereof (col. 12, lines 41-42 and col. 13, lines 60-63); a release sheet (190) covering the first surface of solid electro-optic medium (130) (col. 12, lines 42-46 and col. 13, lines 10-14) but not specifically disclose a second release sheet. However, Jacobson et al. discloses, in figures 6A and 7A, a second release sheet (620) (col. 9, lines 36-43). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the device of Holman et al. with the second release sheet of Jacobson et al. for the purpose of liberating a purely metallic structure (col. 9, lines 19-20).

Regarding claim 22, Holman et al. discloses, in figure 1, an article of manufacture, wherein the electro-optic medium (130) is an electrophoretic medium comprising a plurality of capsules (140) (col. 12, lines 62-64), each capsule (140) comprising a suspending fluid (165) (col. 12, lines 64-67), a plurality of electrically charged particles (150 and 160) suspended in the suspending fluid (165) and capable of moving therethrough on application of an electric field to

Art Unit: 2873

the suspending fluid, and a capsule wall surrounding the suspending fluid (165) and the electrically charged particles (150 and 160) (col. 12, lines 64-67 and col. 13, lines 1-8).

Regarding claim 27, Holman et al. discloses, in figure 1, a process for forming an electro-optic display, wherein the first (180) and second (not shown) adhesive layers of the article of manufacture extend beyond the periphery of the layer of electro-optic medium (figure 1), and wherein during the process the peripheral portions of the first (180) and second (not shown) adhesive layers are adhered to each other, thereby forming an edge seal around the electro-optic medium (130) (col. 15, lines 1-18) (figure 1).

Regarding claim 37, Holman et al. discloses, in figure 1, an article of manufacture, wherein the electro-optic medium (130) is an electrophoretic medium comprising a suspending fluid (165) (col. 12, lines 64-67), and a plurality of electrically charged particles (150 and 160) suspended in the suspending fluid (165) and capable of moving therethrough on application of an electric field to the suspending fluid (col. 12, lines 64-67 and col. 13, lines 1-8).

Regarding claim 38, Holman et al. discloses, in figure 1, an article of manufacture, wherein the suspending fluid (165) and the plurality of electrically charged particles (150 and 160) are present as a plurality of discrete droplets and a continuous phase of polymeric material surrounds the droplets (col. 29, lines 66-67 and col. 30, lines 1-8).

Regarding claim 39, Holman et al. discloses, in figure 1, an article of manufacture, wherein the suspending fluid (165) and the plurality of electrically charged particles (150 and 160) are retained within a plurality of cavities formed in a carrier medium (130) (col. 12, lines 41-42 and col. 13, lines 60-63).

Art Unit: 2873

Regarding claim 40, Holman et al. discloses, in figure 1, an article of manufacture, wherein the electro-optic medium (130) is a rotating bichromal member medium or an electrochromic medium (col. 25, lines 22-26).

6. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Holman et al. (6831769 B2) as applied to claim 23 above, and further in view of Kazlas et al. (US 2004/0014265A1).

Regarding claim 25, Holman et al. discloses the claimed invention except for a color filter array. Kazlas et al. shows that it is known to provide a color filter array for providing color to the display (sections 0077 and 0080). Therefore it would have been obvious to someone of ordinary skill in the art at the time the invention was made to combine the teaching of Holman et al. with the color filter of Kazlas et al. for the purpose of providing color to the display (sections 0077 and 0080).

Response to Arguments

7. Applicant's arguments with respect to claims 17-27 and 33-44 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandi N. Thomas whose telephone number is 571-272-2341. The examiner can normally be reached on 8-5.

Art Unit: 2873

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BNT

BNT
May 29, 2005


Georgia Epps
Supervisory Patent Examiner
Technology Center 2800